Claims

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- 1. Method for allocating station addresses (6) to communication users (2) in a bus system (9), whereby exactly one first communication user (1) able to transmit automatically on a bus (3) can allocate data to a station address (6), said data uniquely identifying another communication user (2), or can characterize a station address (6) as non-occupied, in which method in each communication cycle
- the first communication user (1) in each case sends a first data packet (10) to each station address (6), whereby the first data packet (10) if necessary contains data allocated to the respective station address (6), said data uniquely identifying another communication user (2),
- one or more other communication users (2) each send the first communication user (1) a second data packet containing their station address (6) and data uniquely identifying the respective other communication user (2), whereby the data uniquely identifying the respective other communication user (2) is allocated to the respective station address (6) by the first communication user (1) and
 - the first communication user (1) sends all other communication users a third data packet (13) containing the information about which station addresses (6) are characterized as non-occupied,
 - whereby a communication user (1) that in an earlier communication cycle already sent the first communication user (1) a second data packet containing data uniquely identifying this communication user (2) and that in a subsequent
- 30 communication cycle receives a first data packet (10) containing data not uniquely identifying this communication user (2) automatically alters the station address (6) thereof

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to one of the station addresses (6) characterized as non-occupied.

- 2. Method according to claim 1, characterized in that the cycle duration of the communication cycle is variable.
 - 3. Method according to one of the preceding claims, characterized in that device information can be stored in storage means of the other communication users (2), whereby the storage means can be addressed via the bus (3) by the first communication user (1) and the device information can be read out by the first communication user (1).
- 4. Use of a method according to claim 3 for project planning 15 of a bus system (9).
 - 5. Communication user (1) in a bus system (9) which can automatically transmit on a bus (3) and has
- means for allocating to a station address (6) data uniquely identifying another communication user (2) and
 - means for characterizing a station address (6) as nonoccupied.
- 6. Communication user (2) in a bus system, having means (8)
 25 for sending a first communication user (1) second data packets
 containing data uniquely identifying the communication user (2)
 and being able automatically to alter the station address (6)
 thereof.